CLAIM AMENDMENTS

1 to 72. *CANCELLED*

73. *CANCELLED*

74. *CANCELLED*

75. *(Currently amended)* An isolated, synthetic, substantially pure, or recombinant polynucleotide comprising a nucleic acid sequence that encodes a telomerase reverse transcriptase (TRT) protein, or the exact complement of said nucleic acid sequence;

wherein said TRT protein has telomerase catalytic activity when complexed with a telomerase ~~RNA;~~ RNA, and contains an amino acid sequence that is at least 80% identical to the full length of SEQ. ID NO:2.

76. *(Previously presented)* The polynucleotide of claim 75, comprising a promoter sequence operably linked to the sequence that encodes the protein.

77. *(Previously presented)* An isolated cell comprising the recombinant polynucleotide of claim 75.

78. *(Previously presented)* The cell of claim 77, which is a eukaryotic cell.

79. *CANCELLED*

80. *(Withdrawn)* A method of increasing the proliferative capacity of a cell, comprising expressing in the cell a polynucleotide according to claim 75.

81. *CANCELLED*

82. *CANCELLED*

83. *(Currently amended)* An isolated, synthetic, substantially pure, or recombinant polynucleotide comprising a nucleic acid sequence that encodes a TRT protein, or the exact complement of said nucleic acid ~~sequence,~~ sequence;

wherein said TRT protein has telomerase catalytic activity when complexed with a telomerase ~~RNA;~~ RNA, and contains an amino acid sequence that is at least 90% identical to the full length of SEQ. ID NO:2.

84. *(Previously presented)* The polynucleotide of claim 83, comprising a promoter sequence operably linked to the sequence that encodes said TRT protein.

85. *(Previously presented)* An isolated cell comprising the recombinant polynucleotide of claim 83.

86. *(Previously presented)* The cell of claim 85, which is a eukaryotic cell.

87. *CANCELLED*

88. *(Withdrawn)* A method of increasing the proliferative capacity of a cell, comprising expressing in the cell a polynucleotide according to claim 83.

89. *CANCELLED*

90. *CANCELLED*

91. *(Currently amended)*) An isolated, synthetic, substantially pure, or recombinant polynucleotide comprising a nucleic acid sequence that encodes a TRT protein, or the exact complement of said nucleic acid ~~sequence,~~ sequence;

wherein said TRT protein has telomerase catalytic activity when complexed with a telomerase ~~RNA;~~ RNA, and contains an amino acid sequence that is at least 80% identical to 500 contiguous amino acids in SEQ. ID NO:2.

92. *(Previously presented)* The polynucleotide of claim 91, comprising a promoter sequence operably linked to the sequence that encodes said TRT protein.

93. *(Previously presented)* An isolated cell comprising the recombinant polynucleotide of claim 91.

94. *(Previously presented)* The cell of claim 93, which is a eukaryotic cell.

95. *CANCELLED*

96. *(Withdrawn)* A method of increasing the proliferative capacity of a cell, comprising expressing in the cell a polynucleotide according to claim 91.

97 to 100. *CANCELLED*

101. *(Previously presented)* The polynucleotide of claim 75, wherein said TRT protein contains a sequence that is at least 95% identical to 100 contiguous amino acids in SEQ. ID NO:2.

102. *(Previously presented)* The polynucleotide of claim 75, wherein said TRT protein contains a sequence that is at least 98% identical to 100 contiguous amino acids in SEQ. ID NO:2.

103. *(Previously presented)* The polynucleotide of claim 75, wherein said TRT protein contains a sequence that is at least 95% identical to 500 contiguous amino acids in SEQ. ID NO:2.

104. *(Previously presented)* The polynucleotide of claim 75, wherein said TRT protein contains a sequence that is at least 98% identical to 500 contiguous amino acids in SEQ. ID NO:2.